ON LAKE MICHIGAN

Summer 1997

Questions A-Rise - Lake Levels Up

Shoreline property owners and beach-goers know, lake levels have been on the rise. The lake is still below its all time high which was set in October 1986 (582.35' IGLD 1985), however, the Army Corps of Engineers reported in June 1997 that Lake Michigan is only 7 inches below the June 1986 maximum (581.8').

DNR coastal dynamics expert, Steve Davis says "a cold wet period began in April 1996. Since then, storms have been increasing the amount of water entering the Great Lakes and cool temperatures have been decreasing the amount of evaporation from the lake, resulting in a rising lake level trend for 1996-97." Since the beginning of 1996, water levels on Lakes Michigan-Huron have risen 30 inches.

Above normal snowfall in 1995-96 across much of the Great Lakes and increased precipitation over the entire basin are considered primary causes for current high lake levels. Precipitation over the entire basin for 1996 was 113% of average, the fifth highest year since 1900. Precipitation in the Lakes Michigan- Huron basin was 107% of its yearly average during 1996.

Davis explained that a combination of rising lake levels, a lack this past winter of protective "shelf-ice" during several warm periods this past winter, and the occurrence of winter storms during those periods combined to result in narrower beaches, and in certain areas, dune bluff erosion. Some shoreline communities have already experienced the magnified impacts of being exposed to waves during storms due to higher lake levels.

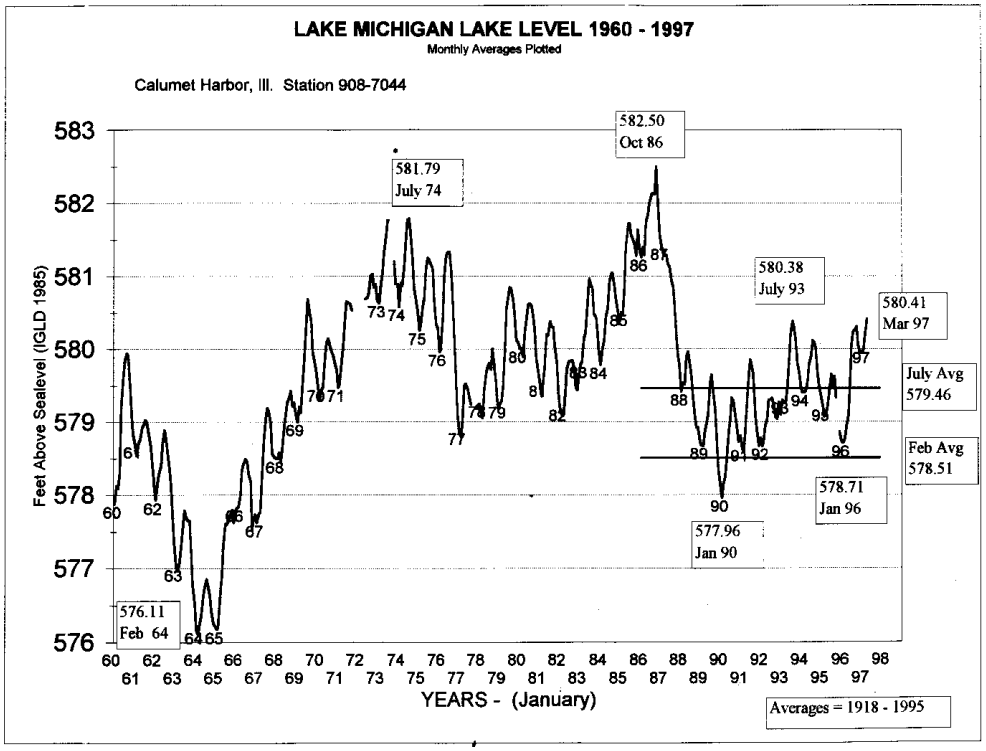
The level of each Great Lake is determined by its water supply, the amount of evaporation, and its outflow capacity. The primary factor in determining water supply is precipitation,

On Shore for this issue:

NRC Modifies Rules for Lake Michigan 2
Legacy of 95' Work Group Process.. 2-3
Corridor Vision Project 3
Lake Michigan Boating Laws 3-4
Biological Barrier ..... See insert
Zebra Mussel Mania ..... See insert

which cannot be controlled. The frequency and intensity of storms will affect the erosion potential of the shoreline. "How high the water levels rise," Davis says, "is dependent on the weather."

A typical yearly cycle of lake levels has a low in the winter (February) and a high in the summer (July). This can be seen by looking at the long term average monthly lake levels for the period 1918 to 1994. The long term average for the month of February is 578.5' and the long term average for July is about 579.46'. At the end of 1996, the normal decline in lake level after midsummer was delayed and the lake continued to rise until September. After only a brief decline in October, November, and December, the lake began to rise again at the beginning of 1997. This means the normal drop in lake level did not occur. The additional storage of water is causing Lake Michigan to rise above the monthly long term averages.



Visit the shoreline processes page of the Coastal Coordination Program homepage for more information at http://www.dnr.state.in.us/lakemich/coastal.htm. Questions can be directed to Steve Davis at davisdnr@mail.netnitco.net.

NRC Modifies Rules for Lake Michigan and Other Navigable Waters

During its June monthly meeting held at Lake Wawasee, the natural resources commission gave final adoption to modified rules for Lake Michigan and Indiana's other navigable waterways. New language would make permanent a current "emergency rule" which establishes a general permit for placing "beach nourishment" along Lake Michigan.

A "general permit" simplifies the process for obtaining permission from a regulatory agency for an activity. So long as the activity meets conditions described by rule, a person is not required to satisfy sometimes lengthy notice requirements or to await agency reviews of complex permit applications.

For the navigable waters rules, use of the general permit streamlines the regulatory process for placing uncontaminated sand to reduce shoreline erosion. A notice is provided by the person wishing to place beach nourishment, giving basic information as to the source of the sand, where it is to be placed, and permission by the landowner for placement. The IDNR has two weeks to review the notice, and unless it raises written objections based on environmental, navigational, or similar concerns, the general permit is deemed approved. In the absence of a general permit, the person would be required by law to complete a full permit application, then wait months for the agency review.

The navigable waters rules cover several other diverse topics as well. Among them are the extraction of sand, oil, coal, or other minerals from beneath the beds of navigable waterways. Also included are requirements that marinas have sanitary pumpouts for boats and for permitting activities related to abandoned shipwrecks.

New language acknowledges the "public trust doctrine" which helps protect citizen rights to navigable waters. In addition, landowner rights are identified as important to the permitting process.

For the most part, the rules recodify existing standards pertaining to navigable waterways. The recodification process results from 1990 legislation, and more recent enactments, which have redefined the roles of the natural resources commission and the department of natural resources. Before becoming effective, the rules must be approved by the attorney general and the governor. The new rules would be codified as 312 IAC 6.

To assist in the administration of these rules, the commission has also published a guidance document called "Roster of Waters Declared Navigable or Nonnavigable." This document may be found on the Web at the following address: http://www.ai.org/nrc/navigati.htm

Legacy of the 1995 Work Group Process

Between February and June 1995, a public work group process sought citizen views on issues facing Indiana's Lake Michigan Coastal region. The process was organized by the IDNR but chaired

(continued on page 3)

locally. The process is described in Northwest Indiana Public Work Groups: Issues and Resolutions for the Indiana Shoreline of Lake Michigan. The publication was distributed to local libraries and is available on the Internet at the followingaddress:

http://www.dnr.state.in.us/lakemich/issues/index.htm

The unranked solutions raised by the work group process were researched, and the information assembled, in Northwest Indiana Public Work Group Process: 865 Annotations by the Indiana Department of Natural Resources. It reviews current activities and programs relating to the proposed solutions. This publication was also distributed to local libraries.

One of the recommendations from the work group process was the establishment of a local group to review and synthesize the solutions. To this end, the Blue Ribbon Advisory Panel (the "BRAP") was formed in August 1996. Since that date, the BRAP has focused primarily on permit streamlining and suggested a greater role for the Lake Michigan Marina Development Commission (the "LMMDC"). See the Spring issue of SHORELINES.

Citizen comments from the 1995 work group process were key to the development of several new initiatives. Notable among them are the Healthy Beaches Initiative and its Inter-Agency Technical Task Force on *E. coli*. This effort seeks to identify causes and solutions to sporadic beach closings when monitoring detects high *E. coli* counts. Other initiatives include a recreational needs assessment based upon public meetings and a survey of shoreline users. Discussions have begun with the Detroit District of the US Army Corps to explore permit coordination and streamlining opportunities.

Next Issue:
Shoreline Erosion ! See Fall 1997 issue of Indiana Shorelines

A third publication is in the works to carry forward the efforts of the 1995 citizen work group process. This publication is organized by subject-matter, with chapters addressing topics including property rights, governmental streamlining, and water quality. Activities by the BRAP and the LMMDC, and new developments such as state and local efforts aimed at "brownfields," will also help provide future direction.

Grand Calumet River & Indiana Harbor Ship Canal Corridor Vision Project

by Dorreen Carey
Corridor Vision Steering Committee

The Grand Calumet River and Indiana Harbor Ship Canal flow through industrial, commercial, residential, and natural areas of Gary, East Chicago, and Hammond, Indiana. The river is heavily polluted by industrial and municipal wastewater discharges. But initiatives are underway to clean up water and sediment pollution.

In mid 1996, the Grand Cal Task Force, a not-for-profit river advocacy organization, asked key stakeholders in the Grand Calumet River corridor to join in a voluntary and broadly inclusive process for envisioning future land uses adjacent to the River and Ship Canal. The process would be anchored by the concept of a greenway and trail system. The hope was to follow the example of the many cities and regions that are successfully using river and waterfront corridors as unifying elements for community based sustainable planning and development.

For the past year, a core group representing city planners, industry, state and federal agencies, and advocacy groups from our region have met to conceptualize a project design that satisfies the needs of the diverse participants. The following proposed goal statement for a River Corridor Vision was determined through consensus and will be used to guide the project planning:

Through a partnership funding and visioning process to plan for the revitalization and restoration of the Grand Calumet River and Indiana Harbor Ship Canal Corridor in Northwest Indiana and to promote an effective balance of community and economic development, recreation, commercial, industrial, conservation, preservation, water quality, cultural, and historic and environmental education uses and benefits.

From its beginnings in the 1980s, the Grand Cal Task Force saw the Grand Calumet River as a future community resource, envisioning walking and biking trails, greenways, parks, revitalized neighborhoods and a thriving economy along its banks. The future has become now, and through the Corridor Vision Project and the resulting partnership, an exciting opportunity has been created for cooperation, coordination, and unity of vision to accomplish these goals for the benefit of all of Northwest Indiana.

The Corridor Vision Steering Committee includes:

The Cities of East Chicago, Gary, and Hammond,U.S.Steel, Gary Works,Inland Steel, NIPSCO, AMOCO, DuPont,Lake County Parks Department, National Park Service,IDNR, IDEM,EPA Great Lakes National Program Office, NIRPC, Illinois-Indiana Sea Grant, Grand Cal Task Force, Save the Dunes Council, The Nature Conservancy, Calumet Ecological Park Association.

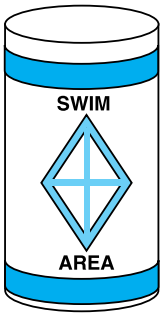
Lake Michigan Boating Laws Online

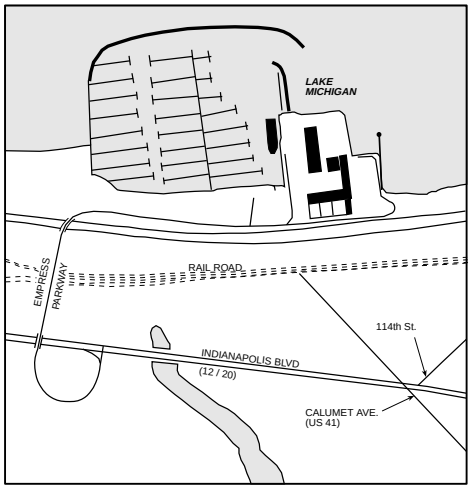
In response to boater education and safety concerns by the Lake Michigan Marina Development Commission, a new compilation of boating laws and other information helpful to boaters is coming online. The boating law compilation focuses on Lake Michigan and includes federal and state statutes and regulations, excluding standards which do not apply to Lake Michigan. Color illustrations identify buoys, channel markers, and "no-boat" (swimming) zones along the shoreline.

A feature is the "Ten Most Violated Boating Laws on Lake Michigan." With help from both the U.S. Coast Guard in Cleveland and Indiana conservation officers, the ten most-violated list was developed to identify those laws most likely to result in an arrest or a citation.

Emergency telephone numbers are listed. Pumpout facilities are identified. Maps help locate public marinas and gaming boats.

Construction of this web site through the Lake Michigan Coastal Coordination Program is now in progress.





Hammond Marina

The Lake Michigan Coastal Coordination Program is an effort by the State of Indiana to improve communications and cooperation among the agencies who participate in activities in the Lake Michigan coastal region.

Managing Editor	Jennifer Kane
Editors	Dawn Deady Stephen Lucas
Graphics Designer	Jeffrey S. Foreman
Contributions	Dorreen Carey Jennifer Kane

Indiana Shorelines for Coastal Coordination is a quarterly publication of the Lake Michigan Coastal Coordination Program. Please direct questions, comments, or up-coming event information to:

Jennifer Kane, (317) 232-0156;

Jennifer_Kane_at_dnrLan@ima.isd.state.in.us

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER
402 WEST WASHINGTON STREET, ROOM W264
INDIANAPOLIS, INDIANA 46204-2743

BULK RATE
U.S. POSTAGE
PAID
INDIANAPOLIS, IN
Permit#7374

"Zebra Mussel Mania" and Better Education About Aquatic Nuisance Species

by Jennifer Kane

On June 18, 1997 the Great Lakes Panel on Aquatic Nuisance Species adopted a Guidance for Information and Education Efforts for the Prevention and Control of Aquatic Nuisance Species in the Great Lakes. The panel works to prevent and control zebra mussels, sea lampreys, and similar aquatic nuisance species (ANS) in Lake Michigan and the other Great Lakes. The panel was convened in 1991 by the Great Lakes Commission.

According to the panel, successful prevention and control efforts of aquatic nuisance species are dependent upon effective information and education programs. These programs must be comprehensive, carefully targeted, and offer a consistent message from one audience to the next.

The panel also conducted an inventory and evaluation of existing ANS information and education programs for the Great Lakes Basin. The goal of the inventory project is to advance prevention and control efforts through coordinated information and education activities and to detect areas where these activities are lacking. The panel concluded that active participation by public agencies, business, and industry was needed to communicate the mutual importance for controlling ANS.

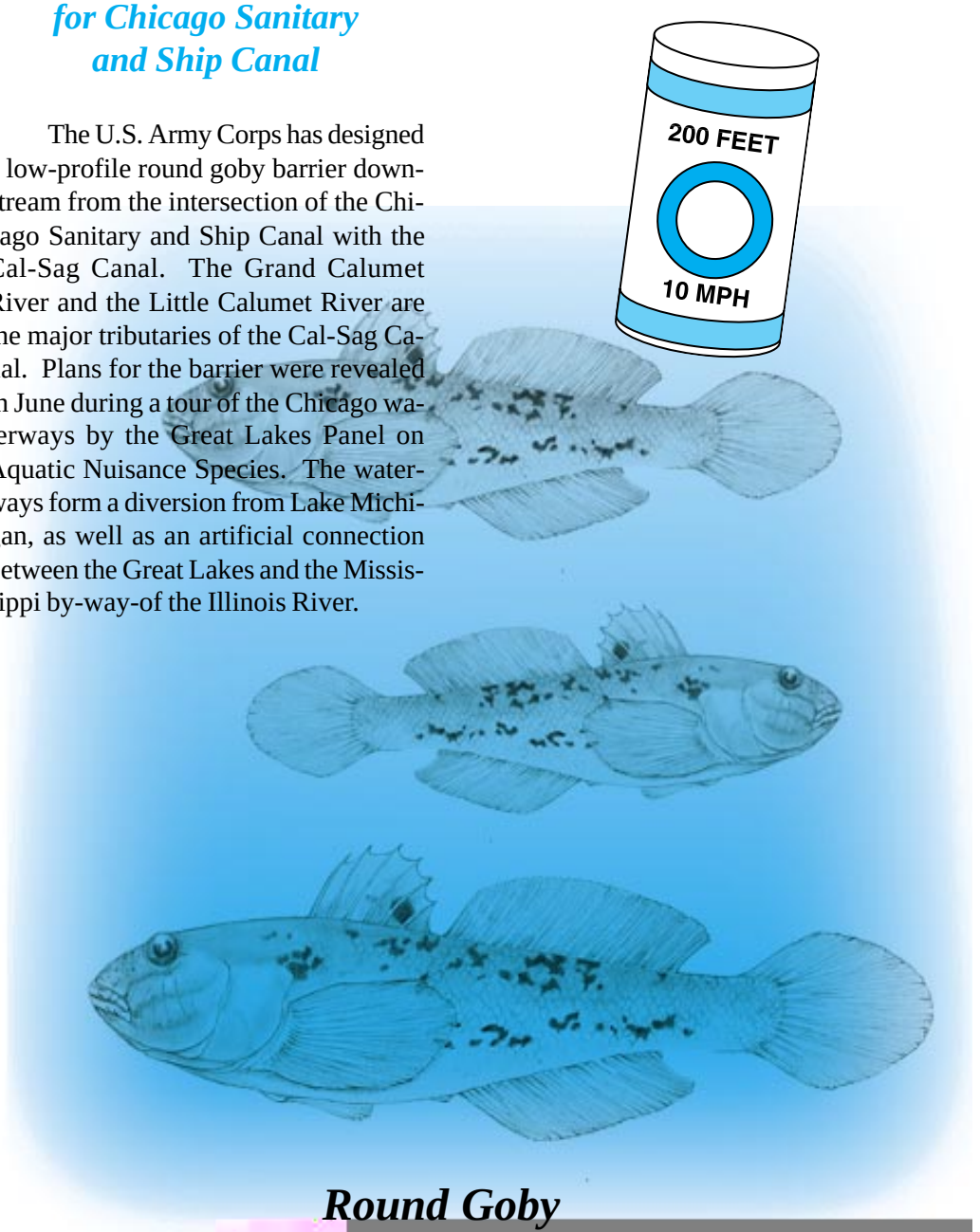
The panel views the preparation and distribution of curriculum materials for K-12 students as an integral part of its strategy. One program is the Zebra Mussel Mania Traveling Trunk Project sponsored by the Illinois-Indiana Sea Grant Program and coordinated with Illinois Rivers. The traveling trunk is described by Sea Grant as an education kit with a series of hands-on activities, games, and stories. These help explain the effects of zebra mussels on our inland waterways and suggest ways in which the students can educate their communities about zebra mussels and ways to prevent their spread.

The kit was originally developed for students in grades five and six, "but used successfully with children from grade one through high school," says Illinois-Indiana Sea Grant. The kit contains zebra mussel and other mussel shells, video programs, worksheets, and experiments along with a teacher resource portfolio. More information on the traveling trunk may be obtained through Illinios-Indiana Sea Grant at (217)333-9448, or http://www.ansc.purdue.edu/il-in-sg/ .

Biological Barrier Planned for Chicago Sanitary and Ship Canal

The U.S. Army Corps has designed a low-profile round goby barrier downstream from the intersection of the Chicago Sanitary and Ship Canal with the Cal-Sag Canal. The Grand Calumet River and the Little Calumet River are the major tributaries of the Cal-Sag Canal. Plans for the barrier were revealed in June during a tour of the Chicago waterways by the Great Lakes Panel on Aquatic Nuisance Species. The waterways form a diversion from Lake Michigan, as well as an artificial connection between the Great Lakes and the Mississippi by-way-of the Illinois River.

The barrier is described in the National Invasive Species Act which passed Congress in 1996. Round gobies are already established in southern Lake Michigan and its tributaries, but the hope is to prevent their movement southward into the Illinois River. Long-range plans for a permanent full-water column barrier, to control the movement of other species, were also discussed by the panel. Currently, the Chicago waterways form a route by which aquatic nuisance species, like the round goby, may move into or from Lake Michigan.



Round Goby

Sign-up / Change of Address

Please fill out the form below, if you have not already done so, to continue to receive Shorelines, be added to the Shorelines mailing list, or inform us of a name or address change.

Name: _____

Organization: _____

Address: _____
_____
_____

Fax to: (317) 233-4579 or

E-mail: louise_bonner_at_dnrwater@ima.isd.state.in.us

Send to: Indiana Department of Natural Resources
Lake Michigan Coastal Coordination Program
402 W. Washington St., RM. W264
Indianapolis, IN. 46204